

AMENDMENTS TO THE CLAIMS

1. (Currently Amended): A liquid crystal display device comprising:

gate and data lines on a first substrate, crossing of the gate lines and data lines defining pixel regions;

a switching device near the crossing of the gate and data lines;

a pixel electrode in one of the pixel regions on the first substrate, the pixel electrode having a slit therethrough, a central portion and side edge portions surrounding the central portion, wherein the side edge portions are [[being]] bent and the central portion is flat;

a common electrode on a second substrate, wherein an electrical field formed between the side edge portions and the common electrode has a lateral component for multiple domains within the pixel region during an operation; and

a liquid crystal layer between the first and second substrates.

2. (Currently Amended): The device of claim 1, wherein the side edge portions have a convex shape.

3. (Original): The device of claim 1, wherein the slit corresponds to the data line.

4. (Original): The device of claim 1, further comprising a center electrode below the slit.

5. (Currently Amended): A liquid crystal display device comprising:

gate and data lines on a first substrate;

a switching device at an intersection of the gate and data lines;

a pixel electrode on the first substrate, the pixel electrode having a slit, a central portion and side edge portions, wherein the side edge portions are [[being]] bent to have a convex shape;

a center electrode below the slit;

a common electrode on a second substrate; and

a liquid crystal layer between the first and second substrates, wherein the center electrode is formed in the same layer as the gate line.

6. (Original): The device of claim 4, wherein the center electrode is formed in the same layer as the data line.
7. (Original): The device of claim 4, wherein the center electrode is electrically connected with the common electrode.
8. (Original): The device of claim 1, further comprising a rib on the second substrate.
9. (Original): The device of claim 8, wherein the rib is located relative to the side edge portions.
10. (Withdrawn): The device of claim 1, wherein the side edge portions have concave shape.
11. (Withdrawn): The device of claim 10, further comprising a center electrode below the slit.
12. (Withdrawn): The device of claim 11, wherein the center electrode is formed in the same layer as the gate line.
13. (Withdrawn): The device of claim 11, wherein the center electrode is formed in the same layer as the data line.
14. (Withdrawn): The device of claim 10, further comprising a rib between the slit and the side edge portions.
15. (Original): The device of claim 1, wherein the liquid crystal layer has a twist angle of 10 to 80 degrees.
16. (Currently Amended): A liquid crystal display device comprising:
gate and data lines on a first substrate, crossing of the gate and data lines defining pixel regions;
a switching device near the crossing of the gate and data lines;
a pixel electrode in one of the pixel regions on the first substrate, the pixel electrode having a slit therethrough, a central portion and side edge portions surrounding the central

portion, wherein the side edge portions have [[having]] convex portions and the central portion is flat;

a common electrode on a second substrate, wherein an electrical field formed between the side edge portions and the common electrode has a lateral component for multiple domains within the pixel region during an operation;

a rib on the second substrate; and

a liquid crystal layer between the first and second substrates.

17. (Original): The device of claim 16, further comprising a center electrode below the slit.

18. (Original): The device of claim 16, wherein the rib corresponds to the side edge portions.

19. (Withdrawn): A liquid crystal display device comprising:

gate and data lines on a first substrate;

a switching device at an intersection of the gate and data lines;

a pixel electrode on the first substrate, the pixel electrode having a slit and side edge portions, the side edge portions having concave portions;

a common electrode on a second substrate;

a rib on the second substrate;

and a liquid crystal layer between the first and second substrates.

20. (Withdrawn): The device of claim 19, further comprising a center electrode below the slit.

21. (Withdrawn): The device of claim 19, wherein the rib is between slit and the side edge portions.

22. (Currently Amended): A liquid crystal display panel, comprising:

first and second substrates spaced apart from each other;

liquid crystal between the first and second substrates;

a common electrode positioned on the first substrate and opposing the second substrate;

gate and data lines perpendicular to each other and positioned on the second substrate, crossing of the gate and data lines defining pixel regions;

a thin film transistor (TFT) positioned near the crossing of the gate and data lines; and
a pixel electrode positioned on the second substrate in one of the pixel regions, opposing the common electrode, and including a slit therethrough, a central portion and side edge portions surrounding the central portion, wherein the side edge portions are ~~[[being]]~~ bent toward the first substrate and the central portion is flat, wherein an electrical field formed between the side edge portions and the common electrode has a lateral component for multiple domains within the pixel region during an operation.

23. (Original): The liquid crystal display panel according to claim 22, further including a center electrode, the center electrode located below the slit of the pixel and electrically connected to the common electrode.

24. (Original): The liquid crystal display panel according to claim 22, wherein the pixel electrode is located with respect to the data line such that the location of the slit corresponds with the location of the data line.

25. (Original): The liquid crystal display panel according to claim 22, wherein said pixel electrode includes a first pixel electrode portion and a second pixel electrode portion, wherein said first pixel electrode portion and said second pixel electrode portion are bordered by the slit, the liquid crystal display panel further including at least two insulated ribs located over each of the first pixel electrode portion and second pixel electrode portion, respectively.

26. (Original): The liquid crystal display panel according to claim 22, further including insulating ribs between the side edges and the slit of the pixel electrode.

27. (Withdrawn): A liquid crystal display panel, comprising:

first and second substrates spaced apart from each other;

liquid crystal interposed between the first and second substrates;

a common electrode positioned on the first substrate and opposing the second substrate;

gate and data lines perpendicular to each other and positioned on the second substrate;

a thin film transistor (TFT) positioned at an intersection of the gate and data lines;

and a pixel electrode positioned on the second substrate, opposing the common electrode, and including a slit and side edge portions, the side edge portions being bent away from the first substrate.

28. (Withdrawn): The liquid crystal display panel according to claim 27, further including a center electrode, the center electrode located below the slit of the pixel and electrically connected to the common electrode.

29. (Withdrawn): The liquid crystal display panel according to claim 27, wherein the pixel electrode is located with respect to the data line such that the location of the slit corresponds with the location of the data line.

30. (Withdrawn): The liquid crystal display panel according to claim 27, wherein said pixel electrode includes a first pixel electrode portion and a second pixel electrode portion, wherein said first pixel electrode portion and said second pixel electrode portion are bordered by the slit, the liquid crystal display panel further including at least two insulated ribs located over each of the first pixel electrode portion and second pixel electrode portion, respectively.

31. (Withdrawn): The liquid crystal display panel according to claim 27, further including insulating ribs between the side edges and the slit of the pixel electrode.

32. (Currently Amended): A liquid crystal display panel, comprising;

a first substrate having an inner surface and a second substrate having an inner surface, the inner surface of the first substrate and the inner surface of the second substrate facing one another and having a space therebetween;

liquid crystal interposed in the space;

gate lines and data lines on the inner surface of the second substrate, crossing of the gate lines and data lines defining pixel regions;

a common electrode located on the inner surface of the first substrate;

a pixel electrode located on the inner surface of the second substrate in one of the pixel regions, the pixel electrode having a slit therethrough and further having a first portion a first distance from the common electrode and a second portion a second distance from the common

electrode, wherein the first portion in a center of the pixel electrode is flat and the first and second distances are different from each other~~-an electrical field formed between the side edge portions and the common electrode has a lateral component for multiple domains within the pixel region during an operation.~~

33. (Original): The liquid crystal display device according to claim 32, the pixel electrode further includes a central region and side edges, wherein the first distance is defined by the distance of the central region from the common electrode and the second distance is defined by the distance of the side edges from the common electrode.

34. (Original): The liquid crystal display device according to claim 33, wherein the first distance is greater than the second distance.

35. (Withdrawn): The liquid crystal display device according to claim 33, wherein the second distance is greater than the first distance.

36. (Original): The liquid crystal display device of claim 32, further including a center electrode electrically connected to the common electrode and located between the pixel electrode and the inner surface of the second substrate in a position corresponding to the slit.

37. (Previously Presented): The liquid crystal display device of claim 32, wherein the data line is located with respect to the pixel electrode such that the location of the slit corresponds to the location of the data line.

38. (Original): The liquid crystal display panel according to claim 32, wherein said pixel electrode includes first and second pixel electrode regions defined by the slit and side edges, the liquid crystal display panel further including at least two insulated ribs located over each of the first and second pixel electrode regions, respectively.

39. (Currently Amended): A liquid crystal display device comprising:

gate and data lines on a first substrate, crossing of the gate and data lines defining pixel regions;

a switching device near the crossing of the gate and data lines;

a pixel electrode in one of the pixel regions on the first substrate, the pixel electrode having a slit, a central portion and at least two side edge portions, the two side edge portions being bent and the central portion being flat, wherein the two side edge portions are substantially symmetrical with reference to the slit;

a common electrode on a second substrate, ~~wherein an electrical field formed between the two side edge portions and the common electrode has a lateral component for multiple domains within the pixel region during an operation;~~ and

a liquid crystal layer between the first and second substrates.

40. (Cancelled)